

# Public Document Pack



## TRAFFORD COUNCIL

### AGENDA PAPERS FOR EXECUTIVE MEETING

Date: Monday, 29 April 2013

Time: 6.30 pm

Place: Committee Rooms 2 and 3, Trafford Town Hall, Talbot Road, Stretford  
M32 0TH

AGENDA	PART I	Pages
10.	<b>GREATER MANCHESTER LOAN FUND</b>	
	To consider a report of the Acting Director of Legal and Democratic Services. <b>TO BE CIRCULATED UNDER SEPARATE COVER</b>	
15.	<b>URGENT BUSINESS (IF ANY)</b>	1 - 6
	Any other item or items which by reason of:-	
	(a) Regulation 11 of the Local Authorities (Executive Arrangements) (Meetings and Access to Information) (England) Regulations 2012, the Chairman of the meeting, with the agreement of the relevant Overview and Scrutiny Committee Chairman, is of the opinion should be considered at this meeting as a matter of urgency as it relates to a key decision; or	
	(b) special circumstances (to be specified) the Chairman of the meeting is of the opinion should be considered at this meeting as a matter of urgency.	

#### **INVESTMENT IN STREET LIGHTING**

To consider a report of the Executive Member for Highways and Environment and Corporate Director, Environment, Transport and Operations.

**Note - This item accompanies Item 17 which is to be considered in Part II of this Agenda.**

**16. EXCLUSION RESOLUTION**

Motion (Which may be amended as Members think fit):

That the public be excluded from this meeting during consideration of the remaining items on the agenda, because of the likelihood of disclosure of "exempt information" which falls within one or more descriptive category or categories of the Local Government Act 1972, Schedule 12A, as amended by The Local Government (Access to Information) (Variation) Order 2006, and specified on the agenda item or report relating to each such item respectively.

**17. INVESTMENT IN STREET LIGHTING**

To consider a report of the Executive Member for Para. 3  
Highways and Environment and Corporate Director,  
Environment, Transport and Operations.

7 - 14

**THERESA GRANT**  
Chief Executive

**COUNCILLOR MATTHEW COLLEDGE**  
Leader of the Council

Membership of the Committee

Councillors M. Colledge (Chairman), A. Williams (Vice-Chairman), S. Anstee, Dr. K. Barclay, Miss L. Blackburn, M. Cornes, J. Coupe, M. Hyman, A. Mitchell and M. Young

Further Information

For help, advice and information about this meeting please contact:

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This agenda was issued on **Thursday 24<sup>th</sup> April 2013** by the Legal and Democratic Services Section, Trafford Council, Trafford Town Hall, Talbot Road, Stretford M32 0TH.

## TRAFFORD COUNCIL

**Report to:** Executive 29 April 2013  
Council 30 April 2013

**Report for:** Decision

**Report of:** Executive Member for Highways & Environment and the  
Corporate Director of Environment, Transport & Operations

### Report Title

**Investment in Street Lighting**

### Summary

The Council's current revenue budget for street lighting is £2.0m. This comprises £1.2m in energy consumption and £0.8m in maintenance.

The proposal is to convert existing SOX/SON lamps to LED over a two year period and also transfer maintenance of all street lamps to a private sector operator.

The investment will include a central management system which will allow individual lights to be controlled, including the ability to brighten or dim.

The financial considerations of this proposal are contained in a separate report in Part 2 of the agenda.

### Recommendation(s)

1. The Executive recommends the Council agrees
  - a. that additional borrowing be approved in the sum stated in the report in Part 2 of the Agenda;
  - b. the changes to the prudential indicators as detailed in the report in Part 2 of the Agenda.
2. Subject to Council approving the recommendations above the Executive approves the replacement programme as detailed in the Report

Contact person for access to background papers and further information:

Peter Molyneux – Corporate Director of Environment, Transport and Operations (Extn 1555) and Ian Duncan – Director of Finance (Extn (4884)

Background Papers: None

Relationship to Policy Framework/Corporate Priorities	Low Council Tax and Value For Money
Financial	The cost of the investment will be included in the Capital Programme for 2013/14 and 2014/15 and financed from prudential borrowing. The annual savings in energy costs and maintenance will cover the borrowing costs and generate additional savings to the revenue budget.
Legal Implications:	It will be necessary to enter into a legal agreement with the preferred partner.
Equality/Diversity Implications	None as a result of this report
Sustainability Implications	Significant reduction in carbon, energy and maintenance costs
Staffing/E-Government/Asset Management Implications	There is a potential impact on staff working in this area if the work is transferred to a private sector provider. Should it be deemed that there is a relevant transfer of an entity, then the Council will ensure that due process is followed in order to protect employment under the provisions of TUPE. We may need to provide supplementary resources for the tender process and review our existing structure.
Risk Management Implications	None as a result of this report
Health and Safety Implications	Replacement lighting will protect communities will increase the safety of pedestrians and road users

## Background

1. The proposed street lighting improvement and investment programme will deliver a number of long term financial savings and service improvements. The current street lighting stock is of mixed age and specification. The Council's significant energy and carbon consumption expenditure is predicted to rise at above inflation rates in coming years.
2. At present, the stock consists of 26,475 columns, the majority of which are steel with a few thousand made of concrete and iron. The lighting units are predominantly SON or SOX – a lighting source which is now considered out of date, due to the energy and cost required to maintain the lamps. These have lower performance than current LED technology.
3. Current annual expenditure is approximately £2.4m per annum and is expected to increase over future years;
  - £838k Maintenance Spend (£745k Variable, £93k Fixed for electrical inspections)
  - £1,200k Energy costs;
  - £108k Carbon Reduction Commitment (CRC) tax, although it is expected that the Council will fall below the qualification criteria in 2014;
  - £300k Capital programme allocation of which £100k is lantern renewal cost and £200k column replacement.

4. Trafford has a commitment to achieving a 48% reduction of energy and carbon by 2020 (GMA). The street lighting service constitutes 75% of the Council's electricity bill and contributes approximately 60% of Trafford's CO<sub>2</sub> emissions, excluding schools.

### **Options Considered**

5. A number of options have been considered including:-
  - Do Nothing
  - Replacement of luminaires with LED technology
  - Replacement of luminaires with LED technology with a Central Management System (CMS)
  - Retain existing luminaires and introduce a CMS
6. The energy consumption and maintenance savings that can be realised using this technology allow net savings to be made on the revenue budget compared to the current position. The detailed financial implications of the options are included in the confidential report elsewhere on the agenda. The evaluation considered the capital cost of each option, residual value of existing equipment and the estimated consumption and maintenance savings each option would provide. The option to replace the luminaires with LED technology combined with a CMS provides the best value for money taking account of the above factors.
7. Some local authorities are looking at the option of a CMS only. However this is dependent upon their luminaires. If the majority of their luminaires are low or high pressure sodium, as in Trafford, then a CMS system alone will not allow a remote dimming regime and therefore does not deliver the sophistication and flexibility that we propose.

### **Proposal**

8. The recommended approach is to replace the luminaires with LED technology with a CMS and the benefits of this option are listed in Paragraph 11. A two phased approach has been evaluated and concluded to derive the most benefit to deliver sustainable financial savings.
9. The first phase will be to replace the existing luminaires with LED technology over a two year period. A Central Management System (CMS) can be installed at the same time as the luminaire replacement. The second phase of the project will be to maintain the network for a further 18 years at significantly reduced cost than currently forecast. This can include a replacement programme for columns which reach the end of their life, either through damage or deterioration (see Para 15 and 16).
10. A further point for consideration is that some commentators think that there is a risk to health from LED lighting. The Council has consulted with the Director of Public Health and based on a European Commission report in 2012 on the health effects of artificial light this states that, "visible and infrared radiations from artificial lights are unlikely to have any effects on health, unless they are extremely intense and used at close range". If further information is available from Public Health England then a verbal update will be provided at the meeting.

## Benefits

11. The benefits derived from this proposal include:

- Maintaining existing service standards and levels of illumination whilst delivering long term budget savings;
- Upgrading inefficient low quality light sources;
- 61% - 70% reduction in energy consumption (54% without a CMS);
- A reduction in customer complaints due to lanterns not working (outages);
- Reduced maintenance regime due to remote monitoring of CMS (removing the need for night time inspections) and improved reliability and performance of LED luminaires;
- Significant contribution to reducing the Council's carbon reduction targets;
- A 20 year guarantee on LED technology;
- Environmental benefits through reduction in obtrusive light and reduction in upward light;
- Enabling individual lights to be controlled centrally to respond to service needs and future budget pressures (eg the ability to turn lights up/down, on/off without having to do it from a remote location);
- Effective risk management to protect communities for safety issues associated with aged stock;
- The ability to retrofit LED technology to heritage areas, and taking into account any conservation area implications

## Dimming Regime

12. With the installation of a CMS it will be possible to dim lights. The initial assumption was for dimming to take place at the following times, which would achieve an additional 7% reduction in energy consumption, i.e. 61% in total:

Area	Dimming regime 1 (full output -100%)	Dimming regime 2 (25% light reduction)
Residential	Dusk till midnight	Midnight till dawn
Traffic	Dusk till 20:00	20:00 till dawn

13. Clearly there are other options to improve on energy savings. The following is expected to achieve a further 9% reduction in consumption, i.e. 70% in total:

Area	Dimming regime 1 (full output -100%)	Dimming regime 2 (30% light reduction)	Dimming regime 2 (50% light reduction)
Residential	Dusk till 20:00	20:00 till midnight	Midnight till dawn
Traffic	Dusk till 20:00	20:00 till midnight	Midnight till dawn

14. The CMS also would give the option to the Council to act in a flexible way depending on the unpredictable movement of future energy costs.

### **Street Lighting Columns**

15. One related point for the Council is the replacement programme for lighting columns. Currently the Council spends £300k each year from the capital programme for the replacement of lighting columns and lanterns. If the LEDs are installed there will be no need to replace the lanterns in future and all the funding can be used for column replacement. The current investment allows for approximately 300 columns to be replaced each year, meaning it would take 89 years to replace the entire network including lantern replacement or 76 years excluding lantern replacement
16. The design lifetime of a column is 25 years, although in reality an actual lifespan of 40 years is not uncommon. However to adhere to this 25 year lifespan would require additional investment of approx. £600K each year. If a 40 year life could be obtained the additional annual investment would be £260k.
17. Street lighting columns are a risk that the Council carries now and as such should not be part of the financial evaluation criteria and will need to be considered separately.

### **Information Requirements**

18. If the Council proceeds with the initiative the following would be required by tenderers, each of which could have a financial implication for the business case:
- An accurate up to date inventory;
  - A specification or performance to bid against (e.g. based on an equivalent white light LED solution for each light source);
  - Initial switch regimes;
  - Initial dimming regimes;
  - List of columns in conservation areas which may require separate treatment subject to the outcome of the forthcoming Conservation Area Management Plans consultation;
  - List of non-standard columns / lanterns which must remain and cannot be upgraded to a standard LED fitting (there may be columns in town centres which cannot be replaced with a standard fitting and may require an upgrade to a white light source and CMS)
  - Plans / Strategy to replace columns during the works
  - Depot – will space be available in our depot or will they need to find their own;
  - High level staffing details for any organised group of workers who would be eligible to transfer under the provisions of TUPE.

### **Risks**

19. Some of the risks for this type of contract would include:
- Strength of company(s) providing warranty on LED lamps;
  - Energy prices, but unlikely to fall;
  - Acceptance by energy suppliers of the CMS as the basis for charging;
  - How quickly energy suppliers reflect LED installations in their billing systems;

- Changes to Carbon Reduction Commitment;
- Ability to sell redundant lamps.

## Procurement Considerations

20. There are only two available procurement routes if the Council is to pursue a fully managed service:-
- Procure directly in our own right. This would require a full OJEU process as this is likely to be considered as a service. This option would be timely due to regulated timeframes by which the procurement activity would need to take place and therefore, if savings are to be realised in this financial year, this may not be the most appropriate solution;
  - Procure through the TMT framework detailed below. As this should already be OJEU compliant, there would only be a mini-competition required amongst the providers already guaranteed a place on the framework. We would propose a specification and ask these providers to bid against it. This solution is relatively quick as the Council can prescribe its own reasonable timeframes.
21. The TMT framework is a GPS (previously OGC) framework but TMT stands for Traffic Management Technology (i.e. the discipline). Link:  
<http://gps.cabinetoffice.gov.uk/contracts/rm869>

Description: Traffic Management Technology  
 Contract ID: RM869  
 Framework start: 12/10/2011  
 Framework end: 12/10/2015

## Other Options

*Other options have been considered including do nothing, the installation of a CMS system alone and retaining the existing lanterns and a straight forward lantern replacement programme but the option of LED lanterns combined with a central management solution provides the best solution in terms of carbon reduction, maintenance and energy saving.*

## Consultation

*Appropriate consultation will be undertaken with stakeholders as the scheme develops.*

## Reasons for Recommendation

*This recommendation has been developed following a transformation review of street lighting. The proposal for the replacement of lanterns and central management system provides the best value for money and will achieve in delivering annual MTFP savings.*

This is a key decision for the Executive

**Finance Officer Clearance** .....GB.....

**Legal Officer Clearance** .....JLF.....

**CORPORATE DIRECTOR'S SIGNATURE** (electronic).....



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By virtue of paragraph(s) 3 of Part 1 of Schedule 12A of the Local Government Act 1972.

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